

REMARKS

The Office Action mailed on July 22, 2004, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 1-30 were pending in the present application, with claims 22-27 being withdrawn. By this paper, Applicants do not cancel or add any claims. Therefore, claims 1-30 remain pending in the present application.

Applicants respectfully submit that the present application is in condition for allowance for the reasons that follow.

Indication of Allowable Subject Matter

Applicants thank examiner Huffman for indicating that claims 13-19 contain allowable subject matter.

Rejections Under 35 U.S.C. § 102

Claims 1-6, 8, 12, 20, 21 and 28-30 again stand rejected under 35 U.S.C. §102(b) as being anticipated by Katsuyama (USP 5,854,643). In response, Applicants respectfully submit that the above claims are allowable for the reasons that follow.

Claim 1: Applicants have previously noted that Katsuyama does not describe each and every element of the alleged anticipated claims. One such element missing from Katsuyama is “a set of **non-movable** print heads fixed to the frame” of the printer. (Claims 1 and 28, emphasis added.)

MPEP § 2131, entitled “Anticipation – Application of 35 U.S.C. 102(a), (b), and (e),” which states that a “claim is anticipated only if each and every element as set forth in the claim is found, either **expressly** or **inherently** described, in a single prior art reference.” (Emphasis added.) There is no third option.

The Office Action has responded to Applicants' arguments by stating that "Applicant's arguments that Katsuyama does not disclose a non-movable print head is not persuasive. Full line printheads are fixed printheads, as is well known in the art," but does not identify where an explicit teaching of this feature may be found. (Office Action, page 6, paragraph 8.) Thus, Applicants assume that the Office Action is arguing that the missing feature is inherent in Katsuyama, since Katsuyama does not contain an explicit teaching, and nothing has been proffered to the contrary. (Applicants presume that if such an explicit teaching was present, it would have been made of record in the Office Action.)

In regard to the inherency of the "non-movable print heads fixed to the frame," Applicants respectfully remind the PTO that, according to MPEP § 2112, while "a rejection under 35 U.S.C. §102/103 can be made when the prior art product seems to be identical except that the prior art is silent to an inherent characteristic," the "[E]xaminer must provide rationale or evidence tending to show inherency." (MPEP § 2112, subsections 3 and 4, emphasis added.) It is respectfully submitted that no rationale tending to show inherency has been proffered in the Office Action, other than the blanket statement quoted above. Applicants further remind the PTO of the following excerpt from MPEP § 2112:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijkaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

(Emphasis added.) Inherency means that the missing descriptive matter is necessarily present in the reference. The courts have allowed the PTO to rely on inherency arguments to free the PTO from the necessity of finding references which explicitly state that inherent elements are present. This is because certain characteristics are inherent, the references will

most probably not mention these elements, and, as such, will be difficult to find. For example, it is not necessary to find a reference that explicitly states that plutonium 239 is radioactive, as plutonium 239 is always radioactive. That is, radioactivity is an inherent feature of plutonium 239. However, inherency is not a panacea that enables the PTO to use references which are *deficient* in teaching certain elements of a claim. Recognizing the power of the inherency argument, the courts have tempered its use, as is seen in § 2112, where the PTO has stipulated that the examiner must follow certain procedures before invoking inherency: the “examiner must provide rationale or evidence tending to show inherency.” In the present case, no such rationale or evidence has been provided in the Office Action. The statement that “[f]ull line printheads are fixed printheads, as is well known in the art” does not satisfy the PTO’s burden to provide rationale or evidence showing that “the missing descriptive matter is necessarily present.” The subject matter claimed in claims 1 and 28 is not *necessarily present* in Katsuyama. It is entirely probable that the Katsuyama reference will be practiced without a “non-movable print heads foxed to a frame.”

Moreover, as noted above, an inherency argument may only be used when be made when “the prior art product seems to be identical except that the prior art is *silent* to an inherent characteristic.” However, Katsuyama is not silent as to this feature. Indeed, as noted in the prior response and repeated below, Katsuyama specifically teaches, at the very passage cited in the Office Action as presenting the elements at issue, that element 1010 (the alleged print head) is movable. (More on this below.) Thus, there can be no inherency argument for the missing elements, since Katsuyama specifically teaches that a “non-movable” print head does not exist all the time.

Just as was the case of the third fastener in the example provided in the MPEP quoted above, the subject matter of Applicants’ claims is not expressly or inherently disclosed in Katsuyama. ***Thus, a reference that explicitly teaches the limitations of the alleged anticipated claims must be found, or else the claims must be allowed.*** Since Katsuyama specifically teaches that the alleged print head is movable, the feature of “non-movable print heads fixed to a frame” is not inherent in the device of Katsuyama, and claims 1 and 28 and their dependencies are allowable.

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Inherency arguments aside, Applicants maintain that the statement in the Office Action that “[f]ull line printheads are fixed printheads, as is well known in the art,” does not comport with the explicit teachings of Katsuyama. The Office Action cites element 1010 and column 10, lines 11-14 of Katsuyama as teaching “non-movable print heads fixed to the frame.” While the cited passages do teach print heads, Katsuyama explicitly teaches that element 1010 is movable: “a carriage 1010 is installed on the printing unit 1000 *movably* . . . [and] [d]uring the *traveling period of the carriage 1010*, printing is performed by means of two ink jet heads installed on the carriage.” (Katsuyama, col. 5, lines 13-17, emphasis added.) Thus, Katsuyama fails to teach “non-movable” print heads/means, and thus claims 1 and 28 and their dependent claims are allowable for at least this reason.

Claim 3: Another missing element that Katsuyama does not describe is the feature of claim 3 that “the idler carriage is disposed to *slide linearly along* the *slide shaft*.” (Emphasis added.)

Applicants previously identified this deficiency of Katsuyama. In response, the Office Action argues that “the word ‘along’ means with.” (Office Action, paragraph 8, lines 5-6.) First, Applicants submit that this is not a possible definition of the word “along” because of the use of the word “slide” before “along.” The definition proffered in the Office Action could only apply, assuming *arguendo* that the definition is correct, when the context in which the term is used completely ignored. That is, Applicants respectfully submit that the proffered definition of the term “along,” as used in the Office Action, can only be obtained by reading the terms of the claim in a vacuum, contrary to the MPEP: The MPEP makes clear that “[c]laims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their ‘broadest reasonable interpretation.’” (MPEP § 2111.01, subsection 1, emphasis added.) One of ordinary skill in the art, after reading the entire claim phrase and/or Applicants’ specification, would immediately recognize that the phrase “carriage is disposed to slide linearly along the slide shaft” means that the carriage slides relative to the slide shaft, as opposed to sliding “with” the slide shaft.

Second, assuming *arguendo* that the word “along” may be as defined in the Office Action, such a meaning fails to comport with the second subsection of MPEP § 2111.01, which establishes what is meant when terms of a claim are given their “plain meaning”: “‘plain meaning’ refers to the meaning given to the term by those of *ordinary skill in the art*.” (MPEP § 2111.01, second subsection, title, emphasis added.) Applicants submit that the term “along” when used in the phrase “carriage is disposed to slide linearly along the slide shaft,” would be instantly recognized by the ordinary artisan as meaning that the carriage slides relative to the slide shaft as opposed to sliding “with” the slide shaft.. In fact, it is difficult to comprehend anything but a carriage that slides relative to a slide shaft in view of the structure of the phrase, and certainly not a carriage that moves in one-to-one relationship with a slide shaft.

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Applicants have previously noted that element 151 is not a slide shaft but instead is “a ball *screw*.” That is, element 151 functions as a jack screw to vary the position of the rollers, and thus the alleged idler carriage of Katsuyama does not slide linearly along element 151.

The PTO has responded that the “screw slides along the threads and thus is a slide shaft,” acknowledging that element 151 is indeed a screw. This argument, even if it was permissible under the requirements of the MPEP sections detailed above (which it is not because it ignores the meaning of “slide shaft”), still ignores the fact that claim 3 recites that the “carriage is disposed to slide linearly along the slide shaft.” Since the screw slides along the threads, as is recognized in the Office Action, the elements slide rotationally, not linearly. There can be no sliding linearly because the threads of the ball screw 151 will catch on the screw nut 152, which is physically necessary to enable the ball screw to vary the position of the rollers of Katsuyama.

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Applicants respectfully submit that the PTO is ignoring the regular interpretation of the claim elements that would be given by one of ordinary skill in the art and instead is interpreting each word of the claims manner most conducive to the rejection of the claims.

Applicants submit that if the claims were to be worded to avoid the interpretation given to each word in the Office Action, it would take two to three times as many words to describe the claimed features; features that are readily understood by the ordinary artisan. There simply is not requirement that an applicant use the most precise language possible and not use words that may have multiple meanings when taken out of context. (Indeed, Applicants submit that a large majority of the words in the English language has at least two meanings, if not more.) Reconsideration of the claim elements in view of the requirements of the MPEP vis-à-vis claim language interpretation and allowance is respectfully requested.

Claims 5 and 8: Applicants have previously noted that Katsuyama does not describe is the feature of “an accumulator roll tensioner for automatically positioning the accumulator roll in response to the movement of the idler carriage in order to maintain a tension on the web.” Applicants have already noted the inconsistency in the Office Action’s identification of the rollers 140U as accumulator rollers and springs 142 as accumulator roll tensioners where these same rollers are *directly mounted* on element 141U and thus *move exactly with* element 141U, which is identified in the Office Action as an idler carriage. Thus, assuming *arguendo* that rollers 140U may vary the tension in the web (as is alleged when rejecting claim 5), they do not automatically position an accumulator roll in response to the movement of the idler carriage. They are, instead, part of the alleged idler carriage! That is, in view of the rejection of claim 5, claim 8 should be allowed.

The Office Action asserts that a “roll that moves as the idler carriage moves” satisfies the recitations of claim 8. This is not correct. To meet the recitations of claim 8, a printer must have an accumulator roll tensioner for automatically positioning the accumulator roll “**in response to** the movement of the idler carriage.” That is, the idler carriage has already moved before the roll tensioner has been adjusted. Applicants rely on the definition of “response,” in view of the context in which it is used in claim 8, which is “a reaction, as that of an organism or mechanism, to a specific stimulus.” (American Heritage Dictionary of the English Language.) In this case, the printer is configured to automatically position the accumulator roll (the reaction) in response to the movement of the idler carriage (the specific stimulus). This is a cause-effect scenario. A claim recitation meeting the PTO’s analysis

would recite something like “wherein the accumulator roll is *directly slaved* to the idler carriage.”

The Office Action also argues that “the limitation for automatically positioning is directed towards the intended use of the device and does not further limit the structure of the apparatus.” This argument is in direct contradiction with MPEP § 2173.05(g), entitled “Functional Limitations,” which states that “the Court held that limitations such as ‘members adapted to be positioned’ and ‘portions . . . being resiliently dilatable whereby said housing may be slidably positioned’ serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976).” (Emphasis added) That is, the functional recitations of claim 8 must be given patentable weight. When such is done, claim 8 is not anticipated.

Claim 12: Claim 12 recites that the printer comprises “at least one *fixed* block *located in the frame* which sets, at least in part, the upper portion of the idler carriage.” (Emphasis added.) Applicants have previously noted the deficiencies of Katsuyama in this regard.

In response, the Office Action asserts that the “Upper unit 141U provides the upper position of the idler carriage, which is fixed relative to the lower unit 141L and which fixes the position of the lower unit.” (Office Action, page 8, lines 4-5.) This statement is quite remarkable, since element 141U has been identified in the Office Action as the idler carriage, and in rejecting claim 8, the Office Action asserts that the idler carriage moves. (Office Action, page 7, lines 9-10.) Moreover, the Office Action has alleged, in rejecting claim 1, that 141L moves relative to 141U: “the slide shafts, 142, 143R, are fixed to the idler carriage, and the idler carriage slides as the slide shafts move inside the lower mount 141L.” (Office Action, page 6, lines 18-19.) If the slide shafts are fixed to the idler carriage 141U, how then can 141U be “fixed relative to the lower unit 141L”?

The answer to this question is that element 141U does indeed move. (See Katsuyama, cols. 6-7, lines 66-6). Thus, it does not meet the recitations of a fixed block. Moreover, Katsuyama teaches that 141U moves with element 141L. Thus, it has nothing to do with setting the upper position of an idler carriage, as is required by claim 12. (Again, functional

limitations must be given patentable weight per MPEP § 2173.05(g).) Further, element 141L is not fixed. As the just identified passage of Katsuyama indicates, element 141L moves. Thus, claim 12 is allowable.

Claims 29 and 30: Katsuyama does not teach “a means for taking up slack in the web as the idler carriage means moves,” as is interpreted under 35 U.S.C. §112, 6th paragraph, in view of the teachings of the specification, nor does it teach “a means for setting alternate upper positions of the idler carriage means,” as is interpreted under 35 U.S.C. §112, 6th paragraph. The rejections outlined in the Office Action in view of these claims does not comport with the requirements of MPEP §2183 for examining claims under 35 U.S.C. §112, 6th paragraph, which states that if “the examiner finds that a prior art element (A) performs the function specified in the claim, (B) is not excluded by any explicit definition provided in the specification for an equivalent, and (C) is an equivalent of the means- (or step-) plus function limitation, *the examiner should provide an explanation and rationale in the Office Action as to why the prior art element is an equivalent.*” (Emphasis added.)

In the Office Action, all that has been alleged is that the “office action provides reference numerals for the elements that satisfy the means plus function claim language.” Applicants submit that the identified elements of Katsuyama are clearly not the same as those presented in the specification. Therefore, equivalence must be shown per MPEP §2183, else the claims allowed.

Other claims: Applicants submit that the other claims that have been rejected as anticipated are allowable at least due to their dependency from independent claims 1 and 28, which are allowable, and for the additional reasons presented in the prior response, those reasons being referred to by reference.

Claim Rejections Under 35 U.S.C. §103(a)

In the Office Action, Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Katsuyama in view of Kurata (USP 6,068,374), with claims 9-11 being

rejected under the same statute in view of these references when combined with Regev (USP 6,652,054). Applicants respectfully traverse the rejection as to the claims above, and submit that these claims are allowable for at least the following reasons.

Applicants rely on MPEP § 2143, which states that:

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that at least the first and third criteria of MPEP § 2143 have not been met in the Office Action.

The Cited References Do Not Suggest All Claim Recitations

Even if the first requirement of MPEP § 2143 was satisfied in the Office Action (which it is not, as previously explained), the cited references still do not meet the third requirement, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Claim 7: Applicants have previously noted that Kurata does not teach or suggest a leg disposed at an **end** of an idler carriage and extending away from a print head, nor does Kurara teach or suggest an idler roller disposed at the end of the leg.

The Office Action argues in response that Fig. 43 of Kurata “shows a device upstream from the platent and the combination provides the device upstream from the idler carriage, which is synonymous with an end of the idler carriage.” First, Applicants submit that a search of synonyms does not reveal that upstream is synonymous with end. Second, such claim interpretation eviscerates the recitations of claim 7. Simply because a first element is upstream from a second element does not mean that that the first element is at an end of the

second element. The allegations in the Office Action are analogous to alleging that a locomotive is at the end of a caboose of a 100 car train. The locomotive, while “upstream” of the caboose, is not at the “end” of the caboose. Again, Applicants refer to MPEP § 2111.01, and submit that the interpretation of claim 7 is not concomitant with the requirements of the MPEP.

Claims 9 and 10: Claims 9-10 are allowable because neither Katsuyama nor Regev teach an accumulator roll tensioner as claimed in claim 8 including a piston actuator *that is controlled by a signal indicative of the movement of an idler carriage*.

In response, the Office Action makes the blanket statement that since a piston actuator is adjusted by “a signal,” but does not identify where a teaching may be found that the signal is indicative of the movement of an idler carriage. Moreover, the logic that “since the combination provides the piston actuator as the device for controlling movement of the idler carriage, the combination teaches the claimed invention” proffered in the Office Action is flawed because claims 9 and 10 recite that the signal *is indicative of the movement of an idler carriage*. It does *not control* the idler carriage.

Other claims: Applicants submit that the other claims that have been rejected as obvious are allowable at least due to their dependency from independent claims 1 and 28, which are allowable, and for the additional reasons presented in the prior response, those reasons being referred to by reference.

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In sum, even if the first requirement of MPEP § 2143 is satisfied, the third requirement of MPEP § 2143 is not satisfied in the Office Action, since the cited references, even after combination, fail to teach each and every element of the present invention. Thus, the present claims are allowable.

Lack of Suggestion or Motivation to Modify or Combine the References

MPEP § 2143.01 states that “the prior art *must* suggest the desirability of the invention.” (MPEP § 2143.01, subsection 1, emphasis added.)

Applicants incorporate by reference the arguments detailed in the prior response vis-à-vis a lack of motivation to modify or combine references.

Rejoinder of Claims 22-27

As noted above, claims 22-27 are pending in the application pending rejoinder with the elected claims pursuant to MPEP § 821.04 and *In re Ochiai*, 71 F.3d 1565 USPQ2d 1127 (Fed. Cir. 1995). Since, as seen above, the elected claims are allowable, Applicants respectfully request that claims 22-27 be rejoined and allowed.

Moreover, such rejoinder does not represent a significant burden on the PTO in view of the allowability of the above apparatus claims.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner Huffman is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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